

1 **CLAIMS**

- 2       **1.** In a computer system, a method comprising:
- 3       detecting user input;
- 4       analyzing the user input;
- 5       predicting desired access to one or more media files based on the analysis;
- 6       retrieving information corresponding to one or more media files from a
- 7       media content source; and
- 8       presenting the information to a user for suggested access.
- 9
- 10       **2.** A method as recited in claim 1, wherein the user input is text.
- 11
- 12       **3.** A method as recited in claim 1, wherein the user input is text in a
- 13       word processor document or in an e-mail.
- 14
- 15       **4.** A method as recited in claim 1, wherein the information further
- 16       comprises suggested media content items, the method further comprising:
- 17       detecting user interest in an item of the suggested media items; and
- 18       responsive to detecting the user interest, displaying a high-level feature
- 19       corresponding to the item, the high-level feature being stored in a database.
- 20
- 21       **5.** A method as recited in claim 1, wherein analyzing the user input
- 22       further comprises determining one or more keywords from the text, and wherein
- 23       the one or more media files correspond to the one or more keywords.
- 24

1       6.    A method as recited in claim 1, wherein analyzing the user input  
2 further comprises evaluating the user input based on lexical features.

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4       7.    A method as recited in claim 1, wherein analyzing the user input  
5 further comprises evaluating the user input based on syntactical features.

6  
7       8.    A method as recited in claim 1, wherein analyzing the user input  
8 further comprises evaluating the user input based on at least a partially instantiated  
9 sentence pattern.

10  
11       9.    A method as recited in claim 1, wherein the method further comprises  
12 identifying media content use patterns, and wherein analyzing the user input  
13 further comprises evaluating the user input based on the media content use  
14 patterns.  
15

1       **10.**    In a computer system, a method comprising:  
2       detecting user access of a media content source;  
3       responsive to detecting the user access:  
4       collecting a piece of media content and associated text from the media  
5       content source;  
6       extracting semantic text features from the associated text and the piece of  
7       media content; and  
8       indexing the semantic text features into a media database.

9  
10       **11.**   A method as recited in claim 10, wherein the media database is a  
11       personalized media database.

12  
13       **12.**   A method as recited in claim 10, further comprising indexing the  
14       piece of media content in the media database or separate from the media database.

15  
16       **13.**   A method as recited in claim 10, wherein the media content source  
17       comprises an e-mail message, wherein the media content is an attached to the e-  
18       mail message or a link to the media content, and wherein the associated text is a  
19       body of the e-mail message.

20  
21       **14.**   A method as recited in claim 10, wherein the media content source  
22       comprises a word processing document, wherein the media content is inserted  
23       media content, and wherein the associated text is document text.

24

1        15.    A method as recited in claim 10, wherein the media content source  
2 comprises a Web page.

3  
4        16.    A method as recited in claim 10, wherein at least a portion of the  
5 semantic text features in the media database include an indication of relevancy  
6 with respect to individual ones of the media content, and wherein the method  
7 further comprises:

8            monitoring user actions;  
9            identifying patterns of media content use from the user actions; and  
10          for each semantic text feature in the at least a portion, modifying its  
11 indication of relevancy to individual ones of the media content based on the  
12 patterns of media content use.

13  
14        17.    A method as recited in claim 10, further comprising:  
15            detecting user input;  
16            performing an analysis of the user input to determine that the user desires to  
17 access media content;

18            responsive to performing the analysis:  
19                generating search criteria based on linguistic features of the user  
20 input;

21                identifying, based at least in part on the search criteria, one or more  
22 media files that are semantically related to the user input from the media database;  
23 and

24                presenting information corresponding to the one or more media files  
25 to the user.

1        18.    A method as recited in claim 17, wherein the linguistic features are  
2 lexical, syntactical, and/or partial sentence pattern features.

3  
4        19.    A method as recited in claim 17, wherein the analysis is based at  
5 least in part on patterns of previous media content use, the patterns corresponding  
6 to the user.

7  
8        20.    In a computer system, a method comprising:  
9 monitoring a plurality of user actions;  
10 determining media content use preferences based on the user actions;  
11 collecting media content and associated text from a media content source;  
12 extracting semantic text features from the media content and the associated  
13 text;  
14 determining that the media content is of interest to the user based at least in  
15 part on semantic similarity between the media content use preferences and the  
16 semantic text features; and  
17 responsive to determining that the media content is of interest to the user,  
18 indexing the semantic text features into a media database.

19  
20        21.    A method as recited in claim 19, wherein the media content use  
21 preferences are further based on keywords extracted from information  
22 corresponding to the user actions.

23

1       22.    A method as recited in claim 19, wherein the media content use  
2 preferences comprise a plurality of user preference models, each user preference  
3 model comprising semantically similar keywords that correspond to the user  
4 actions, and wherein media content is determined to be of interest to the user if  
5 there is semantic similarity between the media content and at least one of the user  
6 preference models.

7  
8       23.    A method as recited in claim 19, further comprising:  
9 detecting that the computer system is in an idle state; and  
10 wherein the acts of collecting, extracting and determining are performed  
11 responsive to detecting the idle state.

12  
13       24.    A computer-readable medium comprising computer-executable  
14 instructions for:

15       detecting user input;  
16       responsive to detecting the user input:  
17           analyzing the user input;  
18           predicting desired access to one or more media files based on the  
19 analysis;  
20           retrieving information corresponding to one or more media files  
21 from a media content source; and  
22           presenting the information as a suggestion.

23  
24       25.    A computer-readable medium as recited in claim 24, wherein the  
25 user input is text.

1        26. A computer-readable medium as recited in claim 24, wherein the  
2 user input corresponds to an e-mail message or a word processing document.

3  
4        27. A computer-readable medium as recited in claim 24, wherein the  
5 information further comprises suggested media content items, and wherein the  
6 computer-executable instructions further comprise instructions for:

7        detecting user interest in an item of the suggested media items; and  
8        responsive to detecting the user interest, displaying a high-level feature  
9 corresponding to the item, the high-level feature being stored in a database.

10  
11       28. A computer-readable medium as recited in claim 24, wherein the  
12 instructions for analyzing the user input further comprise determining one or more  
13 keywords from the user input, and wherein the one or more media files correspond  
14 to the one or more keywords.

15  
16       29. A computer-readable medium as recited in claim 24, wherein the  
17 instructions for analyzing the user input further comprise evaluating the user input  
18 based on lexical features.

19  
20       30. A computer-readable medium as recited in claim 24, wherein the  
21 instructions for analyzing the user input further comprise evaluating the user input  
22 based on syntactical features.

23

1           **31.**    A computer-readable medium as recited in claim 24, wherein the  
2 instructions for analyzing the user input further comprise evaluating the user input  
3 based on at least a partially instantiated sentence pattern.  
4

5           **32.**    A computer-readable medium as recited in claim 24, wherein the  
6 computer-executable instructions further comprise instruction for identifying  
7 media content use patterns, and wherein analyzing the user input further comprises  
8 evaluating the user input based on the media content use patterns.  
9

10          **33.**    A Computer-readable medium comprising computer-executable  
11 instructions for:

12           detecting user access of a media content source;

13           responsive to detecting the user access:

14           collecting a piece of media content and associated text from the media  
15 content source;

16           extracting semantic text features from the associated text and the piece of  
17 media content; and

18           indexing the semantic text features into a media database.  
19

20          **34.**    A computer-readable medium as recited in claim 33, further  
21 comprising computer-executable instructions for indexing the piece of media  
22 content in the media database or separate from the media database.  
23



1       35.    A computer-readable medium as recited in claim 33, wherein the  
2 media content source is an e-mail message, wherein the media content is an  
3 attached to the e-mail message or a link to the media content, and wherein the  
4 associated text is a body of the e-mail message.

5  
6       36.    A computer-readable medium as recited in claim 33, wherein the  
7 media content source comprises a word processing document, wherein the media  
8 content is inserted media content, and wherein the associated text is document  
9 text.

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11       37.    A computer-readable medium as recited in claim 33, wherein the  
12 media content source comprises a Web page.

13  
14       38.    A computer-readable medium as recited in claim 33, wherein at  
15 least a portion of the semantic text features in the media database include an  
16 indication of relevancy with respect to individual ones of the media content, and  
17 wherein the computer-executable instructions further comprise instructions for:

18       monitoring user actions;

19       identifying patterns of media content use from the user actions; and

20       for each semantic text feature in the at least a portion, modifying its  
21 indication of relevancy to individual ones of the media content based on the  
22 patterns of media content use.

23

1       **39.** A computer-readable medium as recited in claim 33, further  
2 comprising instructions for:

3       detecting an action by a user comprising insertion of text;  
4       performing an analysis of the text to determine that the user desires to  
5 access media content;

6       responsive to performing the analysis:

7           generating search criteria based on linguistic features of the text;  
8           identifying, based at least in part on the search criteria, one or more  
9 media files that are semantically related to the text from the media database; and  
10          presenting information corresponding to the one or more media files  
11 to the user.

12  
13       **40.** A computer-readable medium as recited in claim 39, wherein the  
14 linguistic features are lexical, syntactical, and/or partial sentence pattern features.

15  
16       **41.** A computer-readable medium as recited in claim 39, wherein the  
17 analysis is based at least in part on patterns of previous media content use, the  
18 patterns corresponding to the user.  
19

1       **42.** A computer-readable medium comprising computer-executable  
2 instructions for:

3       monitoring a plurality of user actions;  
4       determining media content use preferences based on the user actions;  
5       collecting media content and associated text from a media content source;  
6       extracting semantic text features from the media content and the associated  
7 text;

8       determining that the media content is of interest to the user based at least in  
9 part on semantic similarity between the media content use preferences and the  
10 semantic text features; and

11       responsive to determining that the media content is of interest to the user,  
12 indexing the semantic text features into a media database.

13  
14       **43.** A computer-readable medium as recited in claim 42, wherein the  
15 media content use preferences are further based on keywords extracted from  
16 information corresponding to the user actions.

17  
18       **44.** A computer-readable medium as recited in claim 42, wherein the  
19 media content use preferences comprise a plurality of user preference models,  
20 each user preference model comprising semantically similar keywords that  
21 correspond to the user actions, and wherein media content is determined to be of  
22 interest to the user if there is semantic similarity between the media content and at  
23 least one of the user preference models.  
24

1       45. A computer-readable medium as recited in claim 42, further  
2 comprising computer-executable instructions for:

3       detecting that the computer system is in an idle state; and  
4       wherein the instructions for collecting, extracting and determining are  
5 performed responsive to detecting the idle state.  
6

7       46. A computing device comprising:

8       a processor:

9       a memory coupled to the processor, the memory comprising computer-  
10 executable instructions, the processor being configured to fetch and execute the  
11 computer-executable instructions for:

12       detecting user input;  
13       analyzing the user input;  
14       predicting desired access to one or more media files based on the  
15 analysis;  
16       retrieving information corresponding to one or more media files  
17 from a media content source; and  
18       presenting the information as a suggestion.  
19

20       47. A computing device as recited in claim 46, wherein the user input  
21 comprises insertion of text into a document such as an e-mail message or word  
22 processing document.

1       **48.**    A computing device as recited in claim 46, wherein the information  
2 further comprises suggested media content items, and wherein the computer-  
3 executable instructions further comprise:

4       detecting user interest in an item of the suggested media items; and  
5       responsive to detecting the user interest, displaying a high-level feature  
6 corresponding to the item, the high-level feature being stored in a database.

7  
8       **49.**    A computing device as recited in claim 46, wherein the instructions  
9 for analyzing the user input further comprise instructions for determining one or  
10 more keywords from the user input, and wherein the one or more media files  
11 correspond to the one or more keywords.

12  
13       **50.**    A computing device as recited in claim 46, wherein the instructions  
14 for analyzing the user input further comprise evaluating the user input based on  
15 lexical features.

16  
17       **51.**    A computing device as recited in claim 46, wherein the instructions  
18 for analyzing the user input further comprise evaluating the user input based on  
19 syntactical features.

20  
21       **52.**    A computing device as recited in claim 46, wherein the instructions  
22 for analyzing the user input further comprise evaluating the user input based on at  
23 least a partially instantiated sentence pattern.

24

1       53.    A computing device as recited in claim 46, wherein the computer-  
2 executable instructions further comprise instruction for identifying media content  
3 use patterns, and wherein analyzing the user input further comprises evaluating the  
4 user input based on the media content use patterns.

5  
6       54.    A computing device comprising:  
7 processing means for:  
8           detecting user input;  
9           analyzing the user input;  
10          predicting desired access to one or more media files based on the  
11 analysis;  
12          retrieving information corresponding to one or more media files  
13 from a media content source; and  
14          presenting the information as a suggestion.  
15

1       **55.**    A computing device comprising:  
2       a processor:  
3       a memory coupled to the processor, the memory comprising computer-  
4       executable instructions, the processor being configured to fetch and execute the  
5       computer-executable instructions for:  
6             detecting user access of a media content source;  
7             responsive to detecting the user access:  
8             collecting a piece of media content and associated text from the  
9       media content source;  
10            extracting semantic text features from the associated text and the  
11       piece of media content; and  
12            indexing the semantic text features into a media database.

13  
14       **56.**    A computing device as recited in claim 55, further comprising  
15       computer-executable instructions for indexing the piece of media content in the  
16       media database or separate from the media database.

17  
18       **57.**    A computing device as recited in claim 55, wherein the media  
19       content source is an e-mail message, wherein the media content is an attached to  
20       the e-mail message or a link to the media content, and wherein the associated text  
21       is a body of the e-mail message.

22  
23       **58.**    A computing device as recited in claim 55, wherein the media  
24       content source comprises a word processing document, wherein the media content  
25       is inserted media content, and wherein the associated text is document text.

1  
2       **59.**    A computing device as recited in claim 55, wherein the media  
3 content source comprises a Web page.

4  
5       **60.**    A computing device as recited in claim 55, wherein at least a portion  
6 of the semantic text features in the media database include an indication of  
7 relevancy with respect to individual ones of the media content, and wherein the  
8 computer-executable instructions further comprise instructions for:

9           monitoring user actions;  
10          identifying patterns of media content use from the user actions; and  
11          for each semantic text feature in the at least a portion, modifying its  
12 indication of relevancy to individual ones of the media content based on the  
13 patterns of media content use.

14  
15       **61.**    A computing device as recited in claim 55, further comprising  
16 instructions for:

17          detecting an action by a user comprising insertion of text;  
18          performing an analysis of the text to determine that the user desires to  
19 access media content;  
20          responsive to performing the analysis:  
21           generating search criteria based on linguistic features of the text;  
22           identifying, based at least in part on the search criteria, one or more  
23 media files that are semantically related to the text from the media database; and  
24           presenting information corresponding to the one or more media files  
25 to the user.



1       **62.**    A computing device as recited in claim 61, wherein the linguistic  
2 features are lexical, syntactical, and/or partial sentence pattern features.

3  
4       **63.**    A computing device as recited in claim 61, wherein the analysis is  
5 based at least in part on patterns of previous media content use, the patterns  
6 corresponding to the user.

7  
8       **64.**    A computing device comprising:  
9 processing means for:  
10       detecting user access of a media content source;  
11       responsive to detecting the user access:  
12       collecting a piece of media content and associated text from the  
13 media content source;  
14       extracting semantic text features from the associated text and the  
15 piece of media content; and  
16       indexing the semantic text features into a media database.  
17

1       **65.**    A computing device comprising:  
2       a processor:  
3       a memory coupled to the processor, the memory comprising computer-  
4       executable instructions, the processor being configured to fetch and execute the  
5       computer-executable instructions for:

6               monitoring a plurality of user actions;  
7               determining media content use preferences based on the user actions;  
8               collecting media content and associated text from a media content  
9       source;

10              extracting semantic text features from the media content and the  
11       associated text;

12              determining that the media content is of interest to the user based at  
13       least in part on semantic similarity between the media content use preferences and  
14       the semantic text features; and

15              responsive to determining that the media content is of interest to the  
16       user, indexing the semantic text features with the media content into a media  
17       database.

18  
19       **66.**    A computing device as recited in claim 65, wherein the media  
20       database is a personalized media database.

1        67. A computing device as recited in claim 65, wherein the media  
2 content use preferences are further based on keywords extracted from information  
3 corresponding to the user actions.  
4

5        68. A computing device as recited in claim 65, wherein the media  
6 content use preferences comprise a plurality of user preference models, each user  
7 preference model comprising semantically similar keywords that correspond to the  
8 user actions, and wherein media content is determined to be of interest to the user  
9 if there is semantic similarity between the media content and at least one of the  
10 user preference models.  
11

12        69. A computing device as recited in claim 65, further comprising  
13 computer-executable instructions for:

14        detecting that the processor is in an idle state; and

15        wherein the instructions for collecting, extracting and determining are  
16 performed responsive to detecting the idle state.

1           70.    A computing device comprising:  
2           processing means for:  
3                 monitoring a plurality of user actions;  
4                 determining media content use preferences based on the user actions;  
5                 collecting media content and associated text from a media content  
6           source;  
7                 extracting semantic text features from the media content and the  
8           associated text;  
9                 determining that the media content is of interest to the user based at  
10          least in part on semantic similarity between the media content use preferences and  
11          the semantic text features; and  
12                 responsive to determining that the media content is of interest to the  
13          user, indexing the semantic text features into a media database.  
14  
15          71.    A computing device as recited in claim 70, further comprising  
16          processing means for:  
17                 detecting that the processor is in an idle state; and  
18                 wherein the means for collecting, extracting and determining are performed  
19          responsive to detecting the idle state.  
20

1       72.    A method comprising:  
2       determining that a user wants to save or download a media object from a  
3       media source;  
4       extracting semantic information from the media source; and  
5       suggesting a filename to the user for the media object based on the  
6       semantic information.

7  
8       73.    A method as recited in claim 72, wherein the media source  
9       comprises a Web page.

10  
11       74.    A method as recited in claim 72, wherein the media source  
12       comprises an e-mail message.

13  
14       75.    A method as recited in claim 72, wherein the filename is selectable  
15       and editable.

16  
17       76.    A method as recited in claim 72, wherein the semantic information  
18       is based on any combination of one or more of a filename, text, a title, a keyword,  
19       or a hyperlink extracted from the media content or the media source.  
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77. A device comprising:

processing means for:

determining that a user wants to save or download a media object  
from a media source;  
extracting semantic information from the media source; and  
suggesting a filename to the user for the media object based on the  
semantic information.

78. A device as recited in claim 77, wherein the media source comprises  
a Web page.

79. A device as recited in claim 77, wherein the media source comprises  
an e-mail message.

80. A device as recited in claim 77, wherein the filename is selectable  
and editable.

81. A device as recited in claim 77, wherein the semantic information is  
based on any combination of one or more of a filename, text, a title, a keyword, or  
a hyperlink extracted from the media content or the media source.

1       **82.** A computer-readable medium comprising computer-executable  
2 instructions for:

3       determining that a user wants to save or download a media object from a  
4 media source;

5       extracting semantic information from the media source; and

6       suggesting a filename to the user for the media object based on the  
7 semantic information.

8  
9       **83.** A computer-readable medium as recited in claim 82, wherein the  
10 media source comprises a Web page.

11  
12       **84.** A computer-readable medium as recited in claim 82, wherein the  
13 media source comprises an e-mail message.

14  
15       **85.** A computer-readable medium as recited in claim 82, wherein the  
16 filename is selectable and/or editable.

17  
18       **86.** A computer-readable medium as recited in claim 82, wherein the  
19 semantic information is based on any combination of one or more of a filename,  
20 text, a title, a keyword, or a hyperlink extracted from the media content or the  
21 media source.